

University of Texas at Arlington
Texas Air Monitoring Network SEP

Project Description:

The University of Texas at Arlington ("UT Arlington") shall use SEP Funds to construct, operate, maintain, and potentially expand a network of continuous ambient monitoring stations ("CAMS") that monitor both air toxics and ozone precursors. Each CAMS will feature an automated gas-chromatograph ("Auto-GC") which shall monitor ambient air for chemical compounds that could potentially affect human health and welfare and ozone formation. The current target analyte list for each Auto GC includes approximately 48 parameters. An oxides of nitrogen monitor, sulfur dioxide monitor and meteorological data instruments may also be installed at sites in the future upon approval from TCEQ.

Specifically, UT Arlington shall use SEP Funds for site preparation, equipment purchase, operation and maintenance of an air monitoring network in the state of Texas in order to provide information on data quality and trends to the public, TCEQ, and industry representatives. Contingent upon funding and priorities, each of the CAMS locations shall measure air quality for a variety of parameters. Hourly measurements shall be reported for approximately 48 parameters that participate in the formation of ground level ozone and several of which are designated by the EPA as Hazardous Air Pollutants ("HAPs"). The speciated measurements shall be made using an Auto-GC. In the future at TCEQ's direction, both 5-minute and hourly averaged measurements of oxides of nitrogen ("NO_x"), nitric oxide ("NO"), and nitrogen dioxide ("NO₂"), ozone ("O₃"), sulfur dioxide ("SO₂") and meteorological parameters (i.e., wind speed, wind direction, horizontal wind standard deviation, wind gust, net radiation, and outside air temperature) may be measured and reported. Other parameters may be considered dependent upon funding. The data from this program shall be collected, validated and quality assured using methodologies consistent with TCEQ standards. Available data from each CAMS shall be uploaded every 15 minutes via a web based portal directly to TCEQ's air quality information database which TCEQ may make available to the public via the TCEQ public web site.

UT Arlington shall develop, operate and maintain a TCEQ-approved Quality Assurance Project Plan containing all applicable EPA QA-R5 elements. UT Arlington shall ensure that analysis of all data collected from these sites complies with standard operating procedures for the analysis and measurement of air toxics and ozone precursors in ambient air. UT Arlington must also ensure that the laboratory data generated by this project is from a TCEQ accredited laboratory in compliance with state laws and rules regarding use of certified or accredited testing laboratories. For example, data submitted by UT Arlington or its agents must comply with 30 Texas Administrative Code, Chapter 25, Subchapter A, relating to Environmental Testing Laboratory Accreditation and Certification, as amended, where applicable. UT Arlington shall ensure that the data collected using SEP Funds is validated and sent to TCEQ's LEADS system and EPA's AQS. All costs associated with the collection, transfer, and formatting of this data to be compatible with the LEADS system and the AQS System may utilize SEP funds.

Environmental Benefit:

This air monitoring project will provide data to help prevent pollution and reduce the amount of pollutants reaching the environment. Data from these monitors may be used to evaluate the effectiveness of current emission control strategies, track ambient concentration trends for key pollutants of interest, evaluate episodic emission events, conduct source attribution studies, support enforcement actions and assess potential community exposure to toxic air contaminants.

This SEP will collect data sets that can be used to evaluate and track air pollution emission events as they occur, and to assess potential ambient community exposure to a limited number of HAPs. Data from the monitors will be used with data from other monitors to provide critical information that can be used to evaluate the effectiveness of current and proposed emission control strategies aimed at achieving compliance with the National Ambient Air Quality Standards requirements. The data will also provide a key source of information that is essential to furthering an overall understanding of those emission sources that contribute to ambient community exposure to toxic air contaminants. Another key benefit is the ability to measure the change in the ambient air concentration of the individual target species and quantify control measure effectiveness. Data from these monitors may be publicly accessible through the TCEQ's website and may be used in evaluating air quality in the area, including ozone forecasts, and ozone warnings.

Eligible Areas and Counties:

This project may receive contributions from the following:

All counties statewide.

Minimum Contribution Amount:

\$1,000.00